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## NOTICE OF ALLOWANCE AND FEE(S) DUE

22428 7590 04/18/2011  
FOLEY AND LARDNER LLP  
SUITE 500  
3000 K STREET NW  
WASHINGTON, DC 20007

EXAMINER

SHEVIN, MARK L

ART UNIT

PAPER NUMBER

1733

DATE MAILED: 04/18/2011

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/562,154

12/23/2005

Snjezana Boger

016906-0459

6580

TITLE OF INVENTION: FLUXING AGENT FOR SOLDERING METAL COMPONENTS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	07/18/2011

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.**

**THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.**

### HOW TO REPLY TO THIS NOTICE:

#### I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.**

# **PART B - FEE(S) TRANSMITTAL**

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
or Fax (571)-273-2885**

**INSTRUCTIONS:** This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

22428 7590 04/18/2011  
**FOLEY AND LARDNER LLP**  
SUITE 500  
3000 K STREET NW  
WASHINGTON, DC 20007

## **Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/562,154 12/23/2005 Snjezana Boger 016906-0459 6580

TITLE OF INVENTION: FLUXING AGENT FOR SOLDERING METAL COMPONENTS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
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nonprovisional NO \$1510 \$300 \$0 \$1810 07/18/2011

EXAMINER	ART UNIT	CLASS-SUBCLASS
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SHEVIN, MARK L 1733 148-024000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.  
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 \_\_\_\_\_  
(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 \_\_\_\_\_  
3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee  
☐ Publication Fee (No small entity discount permitted)  
☐ Advance Order - # of Copies \_\_\_\_\_

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.  
☐ Payment by credit card. Form PTO-2038 is attached.  
☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_ Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_ Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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10/562,154	12/23/2005	Snjezana Boger	016906-0459	6580

22428 7590 04/18/2011  
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EXAMINER

SHEVIN, MARK L

ART UNIT PAPER NUMBER

1733

DATE MAILED: 04/18/2011

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 255 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 255 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

## Privacy Act Statement

**The Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/562,154	BOGER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	MARK L. SHEVIN	1733	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to notice of appeal 03/14/2011.
2. ☒ The allowed claim(s) is/are 1,4,5,8,9,15-17,19-37, 40, and 41.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                      |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|  | 9. <input type="checkbox"/> Other _____.   |

/Mark L. Shevin/

/ Roy King/  
Supervisory Patent Examiner, Art Unit 1733

## DETAILED ACTION

### *Status of Claims*

1. Claims 1, 4, 5, 7-12, and 14-43 filed August 19<sup>th</sup>, 2010, are currently under examination. Claims 7-12, 14, 16-18, 20-34, 37, and 38 were previously withdrawn and claims 2, 3, 6, and 13 were cancelled.

### *Rejoinder and withdrawn of restriction requirement*

2. Claim 1 is directed to an allowable product. Pursuant to the procedures set forth in MPEP § 821.04(b), claims 8 and 9, directed to the process of making or using the allowable product, previously withdrawn from consideration as a result of a restriction requirement, are hereby rejoined and fully examined for patentability under 37 CFR 1.104. Claims 7 and 10, directed to the inventions of making the claimed flux and brazing, respectively, have NOT been rejoined and are cancelled by the instant Examiner's amendment.

Because a claimed invention previously withdrawn from consideration under 37 CFR 1.142 has been rejoined, **the restriction requirement between groups I, II, III, and IV as set forth in the Office action mailed on March 7<sup>th</sup>, 2008 is hereby withdrawn.** In view of the withdrawal of the restriction requirement as to the rejoined inventions, Applicants are advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Once the restriction requirement is withdrawn, the provisions of 35 U.S.C.

121 are no longer applicable. See *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

***Withdrawal of election of species requirement***

3. In view of the Examiner's amendment to the instant claims below adding the species together to form a single generic claim 1, **the previous election of species requirement mailed October 23<sup>rd</sup>, 2008 has been withdrawn.** Claims 16-17, 20-34, and 37, which were previously withdrawn as drawn to nonelected species have been entered as shown in the Examiner's amendment below.

***Examiner's Amendment***

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Kevin McHenry on April 11<sup>th</sup>, 2011.

**Any claims not mentioned below remain as stated in the previous claim amendments of August 19th, 2010.**

*Start of Claim Amendments*

=====

1. (Currently Amended) A brazing flux for the brazing of individual heat exchanger parts, comprising:

a flux, comprising a base material, an organic polymer, and nanoparticles,

wherein the flux contains nanoparticles in an amount between 0.01% by volume and 10% by volume, and

wherein the nanoparticles comprise nanoaggregates dispersed in ~~[[an]]~~ the organic polymer,

wherein the base material used is potassium fluoroaluminates with the empirical formula  $K_{1-3}AlF_{4-6}$  or potassium and/or cesium fluorostannates with the empirical formulae  $KSnF_3$  and  $CsSnF_3$ ,

wherein ~~a starting material for~~ the nanoparticles ~~[[is]]~~ comprise at least one kind of nanoparticle selected from the group consisting of carbon nanoparticles, nanoscale pigments, and/or oxides, oxide hydrates, nitrides, and/or carbides of transition metals, carbides of aluminum, carbides of silicon, carbides of boron, and/or cerium.

5. (Currently Amended) The flux as claimed in claim 4, in which the organic polymer used is polyurethanes, synthetic resins, phthalates, acrylates, vinyl resins, ~~silicone resins,~~ and/or polyolefins.

7. (Canceled)

8. (Currently Amended) A process for producing the flux as claimed in claim 1, in which nanoparticles are ~~firstly~~ first dispersed in the organic polymer and then added as nanopaint to ~~[[a]]~~ the base material prior to the brazing process

9. (Currently Amended) A process for brazing individual heat exchanger parts, comprising brazing ~~components~~ individual heat exchanger parts with the flux as claimed in claim 1.

10 – 12. (Canceled)

14. (Canceled)



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16. (Currently Amended) The flux as claimed in claim [[39]] 1, wherein the transition metals are transition metals of groups IV and V of the periodic system.

17. (Currently Amended) The flux as claimed in claim [[39]] 1, wherein the kind of nanoparticle is a nanoscale pigment.

18. (Canceled)

19. (Currently Amended) The flux as claimed in claim [[39]] 1, wherein the kind of nanoparticle is an oxide

20. (Currently Amended) The flux as claimed in claim [[39]] 1, wherein the kind of nanoparticle is a nitride

21. (Currently Amended) The flux as claimed in claim [[39]] 1, wherein the kind of nanoparticle is a carbide of aluminum, a carbide of silicon, or a carbide of boron.

22. (Currently Amended) The flux as claimed in claim [[39]] 1, wherein the kind of nanoparticle is a transition metal.

23 – (Previously Presented) The flux as claimed in claim 22, wherein the transition metal is cerium.

24. (Currently Amended) The flux as claimed in claim [[39]] 1, wherein the kind of nanoparticle is a carbon nanoparticle.

25. (Currently Amended) The flux as claimed in claim [[39]] 1, wherein the kind of nanoparticles is a coated nanoparticle.

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26. (Currently Amended) The flux as claimed in claim [[39]] 1, wherein the kind of nanoparticles is a grafted nanoparticle.

27. (Previously presented) The flux as claimed in claim 1, wherein the nanoparticles improve a resistance to corrosion of a metal component brazed with the flux, as compared to a flux without the nanoparticles.

28. (Previously presented) The flux as claimed in claim 1, wherein the nanoparticles improve an adhesion of paint of a metal component brazed with the flux, as compared to a flux without the nanoparticles.

29. (Previously presented) The flux as claimed in claim 1, wherein the nanoparticles reduce an odor of the flux, as compared to a flux without the nanoparticles.

30. (Previously presented) The flux as claimed in claim 1, wherein the nanoparticles improve a thermal conductivity of the flux, as compared to a flux without the nanoparticles.

31. (Previously presented) The flux as claimed in claim 1, wherein the nanoparticles improve a water runoff property of a metal component brazed with the flux, as compared to a flux without the nanoparticles.

32. (Previously presented) The flux as claimed in claim 31, wherein the water runoff property provides a self-cleaning effect for the metal component.

33. (Previously presented) The flux as claimed in claim 32, wherein the water runoff property further provides a faster drying effect for the metal component.

34. (Previously presented) The flux as claimed in claim 33, wherein the self-cleaning effect and the faster drying effect minimize the growth of microorganisms on the metal component.

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37. (Currently Amended) The flux as claimed in claim 1, wherein the nanoparticles comprise switchable surfaces, wherein the switchable surfaces are alternatively switchable between hydrophobic surfaces and hydrophilic surfaces.

38. (Canceled)

39. (Canceled)

40. (Currently Amended) The flux as claimed in claim [[39]] 1, wherein the organic polymer used is polyurethanes, synthetic resins, phthalates, acrylates, vinyl resins, ~~silicone resins~~, and/or polyolefins.

42. (Canceled)

43. (Canceled)

=====

*End of Claim Amendments*

***Allowable Subject Matter***

5. Claims 1, 4, 5, 8, 9, 15-17, 19-37, 40, and 41 are allowed.

***Reasons for Allowance***

6. The following is an examiner's statement of reasons for allowance:

With respect to independent claim 1, the closest prior art was Peng in view of Ishii and Englert however Peng disclosed a bonding material designed to be melted to bond two surfaces together, not a brazing flux with nanoparticles and Peng did not

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disclose nanoparticles dispersed as nanoaggregates in an organic polymer. Englert was the only reference disclosing a brazing flux but there is no motivation to add nanoparticles to the flux of Englert.

With respect to process claims 8 and 9, these claims are allowed as they require all the limitations of claim 1.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark L. Shevin whose telephone number is (571) 270-3588 and fax number is (571) 270-4588. The examiner can normally be reached on Monday-Friday, 8:30 am to 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy V. King, can be reached at (571) 272-1244. The fax number for the organization where this application or proceeding is assigned is (571) 273-8300.

***/Mark L. Shevin/***

Examiner, Art Unit 1733

/ Roy King/

Supervisory Patent Examiner, Art Unit 1733

April 11<sup>th</sup>, 2011  
10-562,154